

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the above amendments and the following remarks.

Claims 32, 38, 44, 49 and 51 have been amended; Claim 52 has been added. Claims 32-52 are presented for prosecution on their merits.

I. SUMMARY OF OFFICE ACTION

The Examiner provisionally rejected claims 44-48 under 35 U.S.C. § 101 because the Examiner believes that claims 44-48 claim the same invention as claims 1, 5 and 7-12 of co-pending Application No. 10/147,745. Since the claims in Application No. 10/147,745 had not yet been patented as of the date of the Office Action, the double patenting rejection is provisional.

The Examiner rejected Claim 45 under 35 U.S.C. § 112, first paragraph, because the Examiner believes that it fails to comply with the written description requirement. According to the Examiner, the claim contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention.

The Examiner rejected Claims 38 and 51 under 35 U.S.C. § 112, second paragraph, because the Examiner believes they are indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Specifically, Claim 38 is unclear as to what the weight of a forklift quantifies; and Claim 51 recites the phrase “the desired temperature and time period” and used the phrase “the wood products,” both of which

lacked antecedent basis.

The Examiner rejected Claims 32-34, 36-40, 42-44, 49 and 51 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,716,676 to Imagawa.

The Examiner rejected Claims 35 and 50 under 35 U.S.C. § 103(a) as being unpatentable over Imagawa in view of U.S. Patent No. 6,141,901 to Johnson et al.

The Examiner rejected Claims 41 and 45-47 under 35 U.S.C. § 103(a) as being unpatentable over Imagawa and further in view of U.S. Patent No. 5,965,185 to Bianco or U.S. Patent No. 6,227,002 to Bianco et al.

The Examiner rejected claim 48 under 35 U.S.C. § 103(a) over Imagawa in view of U.S. Patent No. 3,814,315 to Dmysh.

II. SUMMARY OF APPLICANT'S INVENTION

Generally speaking, Applicant's invention is a portable/moveable apparatus for eradicating pests from products that are placed within the apparatus. Applicant's apparatus comprises a chamber having a ceiling and a floor, a door that allows ingress to and egress from the interior of the chamber, a means for heating the air before it enters the chamber, and means for circulating the air in the interior of the chamber in order to heat the interior of the chamber evenly..

In a related embodiment, Applicant's apparatus includes a control means for regulating the heating and air circulating means.

Also, a ceiling plenum and a floor plenum work in concert with the circulation means and the heating means to improve the even heating of the air within the chamber.

III. SUMMARY OF THE PUBLICATIONS CITED IN THE OFFICE ACTION**A. U.S. Patent No. 4,716,676 to Imagawa**

Imagawa discloses a system for destroying insects which comprises a circulation chamber (A) that directs steam through a series of cells that are holding boxes of fruit. The circulation chamber utilizes a plurality of air blowers 10 that move the steam in a horizontal direction. Each cell is a separate unit which includes a hood having a differential blower mounted on the hood to draw steam from the floor, through the fruit boxes and out the top of the hood (i.e., moves steam in a vertical direction). A heating device 13 and a cooling device 14 communicate with the circulation chamber (A) via a pair of discharge ports 15. A steam generator 12 also discharges directly into the chamber.

B. U.S. Patent No. 6,141,901 to Johnson et al.

Johnson et al. discloses a method of controlling pests by heating an area to a lethal temperature and maintaining the lethal temperature for at least eleven hours. The treatment is commenced after determining air penetration parameters for the treatment zone. The temperature in the treatment zone is elevated at a rate of between 5° F and 10° F per hour until the air temperature reaches the lethal level.

C. U.S. Patent No. 5,965,185 to Bianco

Bianco discloses a transportable and size-adjustable apparatus for accelerating the ripening process of produce. The apparatus includes an air-flow control system for transferring air between a high pressure plenum and a low pressure plenum.

D. U.S. Patent No. 6,227,002 to Bianco et al.

Bianco et al. discloses an apparatus for cooling produce. The apparatus includes a container and a cooler. The cooler is movable between a first position where the cooler is disposed within the interior volume and a second position where the cooler is at least partially retracted from the interior volume.

E. U.S. Patent No. 3,814,315 to Dmysh

Dmysh discloses an apparatus for heating the interior of cargo trailers. The apparatus is secured to the external surface of the trailer via a curved housing.

IV. RESPONSE TO REJECTIONS AND OBJECTIONS**A. The Anticipatory Rejections (35 U.S.C. §102)**

A rejection under 35 U.S.C. §102(b) requires that each and every element of the claimed invention be taught by the cited reference(s). Since a patent must describe and enable an invention to one skilled in the art, an anticipatory patent by definition must place the claimed invention into the public domain. Clearly, U.S. Patent No. 4,716,676 to Imagawa fails to disclose each and every element of the claimed invention as amended and therefore cannot anticipate Applicant's invention.

The Examiner begins his analysis with respect to independent claims 32 and 49. The Examiner states that Imagawa has a chamber, a first end, a second end, a ceiling, a sub-ceiling defining a ceiling plenum and a floor.

The Examiner's characterization of Imagawa as having a plenum is not correct. Imagawa

discloses a chamber (A) with a first end, a second end, a left wall, a right wall, a ceiling and a floor. However, there is no sub-ceiling shown or discussed in Imagawa. Although Figure 2 (to which the Examiner refers) appears to show a “sub-ceiling,” the element is actually a beam 27 that is supported by its own support structure within chamber (A), as can be clearly seen in Figures 1, 3 and 4. Beams 27 are used in conjunction with a pulley or wench 26 to form a “winding means.” (See column 3, lines 20-25 of Imagawa.) The winding means is designed to “move vertically” hoods 21.

Imagawa does not disclose, nor does it suggest, a sub-ceiling or a ceiling plenum. Therefore, Imagawa cannot anticipate nor make obvious Applicant’s Claims 32 and 49, or any claim that depends directly or indirectly from them (i.e., Claims 33-43 and 50-52).

With respect to Claim 44, Imagawa does not disclose a chamber having external machinery for lifting or moving as claimed in Applicant’s Claim 44. Therefore, Imagawa cannot anticipate Applicant’s Claim 44. In addition, Imagawa’s apparatus was designed to be a permanently placed and does not even suggest moving the chamber. Therefore, Imagawa cannot make obvious Applicant’s Claim 44.

The Examiner makes numerous reference to Figures 1-7 of Imagawa to support his position that Imagawa discloses a ceiling plenum. Unfortunately, Applicant is not sure what the Examiner is referring to without the use of reference numerals and since Imagawa has seven drawings total. Applicant has already discussed what Figures 1, 3 and 4 disclose. Referring to Figures 6 and 7, Imagawa discloses a chamber within a chamber. Applicant is unsure how this forms a ceiling plenum since plenums are designed to facilitate movement of air, while Imagawa’s inner chamber appears to hinder air flow.

The Examiner has also mischaracterized the flooring disclosed in Imagawa. The Examiner has stated that a element 16 forms a subfloor and combined with the floor of the chamber forms a floor plenum. The Examiner has confused a side view of a conveyor roller 16 as forming a complete floor or subfloor. As can be seen in Figures 1 and 3, conveyor roller 16 does not form a floor. The rollers 16 are designed so that an operator can place the produce situated in several produce boxes and sitting atop pallets at the entranceway of the chamber so that the produce may be pushed easily into place. The rollers of Imagawa are spaced at regular intervals so that the pallets cannot fall in between the rollers. However, no where does Imagawa state that machinery (e.g., a fork lift) will be brought into the chamber. In fact, the wheels of a forklift will likely get caught spinning between two rollers, thereby teaching away from Applicant's claimed invention.

Further, rollers 16 purchased from a third party manufacturer would not be designed to act as a primary floor that can be combined with a sub-floor to define a plenum. The manufacturers of the roller system are in a completely different art area and would have little idea on how to form a plenum. The only measurement that a roller manufacturer would take into consideration would be the distance between individual rollers so that the items (pallets in Imagawa's case) sliding across the rollers would not drop in between the rollers; there would be no consideration for controlling air flow.

With respect to Claim 38, Imagawa does not disclose a floor being reinforced to support the weight of a forklift. In fact, Imagawa teaches directly away from Applicant's claim 38 since Imagawa clearly states that the cells are placed on the conveyor roller at the chamber's door and then slid into the chamber. (See column 3, lines 57-62.)

Further, any forklift that drives on the rollers will likely get stuck spinning its wheels as two rollers spin in opposite directions. Therefore, Imagawa cannot anticipate Applicant's claim 38 since it does not teach the use of a forklift or any other machinery operating within the chamber to move the products around. In fact, since a forklift is virtually unusable in such an environment with rollers, Imagawa teaches directly away from Applicant's claimed invention and therefore, cannot even make obvious Applicant's claimed invention.

With respect to Claim 43, nowhere does Imagawa state that the interior of the chamber is pressurized or that Imagawa considered the use of make-up air. Therefore, Imagawa cannot anticipate nor can it make obvious Applicant's Claim 43.

Applicant has amended the independent claims to clarify further the invention being claimed by Applicant. The amendment to the independent claims further emphasize that Applicant's apparatus is designed to heat the air in the chamber evenly. Support for this amendment can be found at page 5, lines 1-4, and page 15, lines 14-17 of the original specification.

In contrast, Imagawa does not teach the even heating of the air within the chamber or of the produce. In Imagawa the produce closest to the heater would be at a higher temperature than the produce furthest away. This can have two repercussions; either the produce closest to the heater gets overheated and is destroyed, or the produce furthest away does not reach a temperature that is lethal to pests thereby failing to destroy the pests.

B. The Obviousness Rejections (35 U.S.C. §103)

With respect to claims 32 and 49, the Examiner says that Johnson et al. discloses a direct-

fired system. Ingawa discloses a system that uses steam which cannot be produced by a direct-fired system. The combination of Ingawa with Johnson et al. would render Ingawa unsatisfactory for its intended purpose, so there is no motivation or suggestion to make the proposed combination. Therefore, the Examiner's combination of Ingawa with Johnson et al. is defective on its face and must be withdrawn. (See MPEP §2143.01.)

With respect to 41, and 45-47, the Examiner cites the combination of Ingawa with either Bianco or Bianco et al. Although Bianco discloses a moveable apparatus, it does not overcome the other deficiencies of Ingawa. Since Claim 41 depends from independent Claim 38, and Claims 45-47 depend directly from independent Claim 44; the combination of Ingawa and Bianco/Bianco et al. still does not disclose the even heating features as claimed by Applicant.

With respect to claims 48, the Examiner says that Dmysh discloses a system for attaching a heater outside of the chamber. However, Dmysh is very particular with respect to the type of heater it utilizes in order to solve other issues. Specifically, Dmysh discloses the use of a catalytic heater – and no other heater. Ingawa discloses a system that uses steam which is not compatible with a catalytic heater. The combination of Dmysh with Ingawa would render Ingawa unsatisfactory for its intended purpose, so there is no motivation or suggestion to make the proposed combination. Therefore, the Examiner's combination of Ingawa with Dmysh is defective on its face and must be withdrawn. (See MPEP §2143.01.)

C. The Non-Art Issues

Applicant has amended Claim 44. Since Claims 45-48 depend directly or indirectly from independent Claim 44, Applicant believes that the claims presented herein are no longer

coextensive in scope with the claims in copending Application No. 10/147,745.

With respect to Claim 45, Applicant submits that the term “reefer” is any type of box-shaped container that is insulated. Reefer containers are insulated because they are usually refrigerated. However, one skilled in the art would realize, after reading Applicant’s description, that virtually any type of container can be used or modified to form the chamber. Again, after reading Applicant’s description, one skilled in the art would not install a refrigeration system to cool the inside of Applicant’s chamber since it is clear that Applicant is using heat to destroy pests. However, the insulated feature of a reefer box will be helpful in reducing the heating costs since the insulation of a reefer box would help to keep the warm air inside the chamber instead of being dispersed to the ambient air. Support for an insulated container (which is essentially what a reefer box is) can be found at page 16, lines 7-8 of Applicant’s specification.

Applicant has amended Claims 38, and 51. Claims 38 and 51 were amended by correcting the lack of antecedent basis. Claim 38 indicated that the floor was reinforced so that it can support a forklift. Claim 38 has been amended to make it clear that the floor can support any type of machinery needed to get into the chamber. Support for this claim amendment can be found *inter alia* at page 12, lines 10-13 of the specification.

Claim 51 has been amended to remove reference to the phrase “the wood products.”

The amendments to Claims 38 and 51 were made in response to a rejection under 35 U.S.C. §112, and not in response to any art rejection.

V. CONCLUSION

Applicant has responded to all of the objections/rejections raised by the Examiner in the

outstanding Office Action. Since Imagawa does not disclose or suggest an apparatus that has a plenum and/or an apparatus that heats the interior of a chamber evenly, Applicant has traversed all art rejections based on Imagawa.

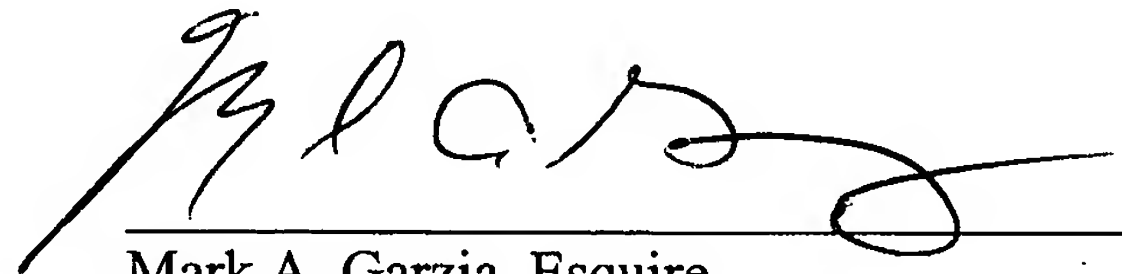
Applicant respectfully requests reconsideration of the present application in view of the above amendments and remarks, and the early issuance of a Notice of Allowance for Claims 32-52.

Should the Examiner have any questions regarding the allowability of the present application, he is invited to telephone the undersigned in order to expedite the examination of the subject application.

Respectfully submitted,

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CERTIFICATE OF MAILING

I hereby certify that this Reply and Amendment, along with any paper or fee indicated as being enclosed, is being deposited with the United States Postal Service as First Class Mail, postage prepaid, and addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date indicated below.

Date: 2 AUGUST 2004



Mark A. Garzia